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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 10/616,453 | 07/08/2003 | Victor B. Kley | 020921-001612US | 1054 |
| 20350 | 7590 | 06/15/2004 | EXAMINER | |
| TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 | | | KALIVODA, CHRISTOPHER M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2881 | |

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------------|---------------------------------|---|
| Office Action Summary | Application No. 10/616,453 | Applicant(s) KLEY, VICTOR B. | |
| | Examiner Christopher M. Kalivoda | Art Unit 2881 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 8, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-90 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 - 8, 25 - 52, and 88 - 90 are drawn to a scanning probe microscope system, classified in class 250, subclass 306.
- II. Claims 9 - 24 are drawn to a Graphical User Interface, classified in class 345, subclass 700.
- III. Claims 53 - 87 are drawn to a microstructured force balance, classified in class 73, subclass 105.

The inventions are distinct, each from the other because of the following reasons: Inventions I and II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the three inventions have different forms, functions and modes of operation and accordingly are classified in different classes and subclasses.

2. Should Applicant select Invention I, the claims are further restricted because this application contains claims directed towards the following patentably distinct species of the claimed invention:

Group I is drawn to claims 1-4 that claim an SPM system for making modifications to an object comprising an SPM probe for making the modifications, a positioning system and a controller to control the positioning system such that

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modification of the object occurs and the particulate material is removed by a sweeping motion.

Group 2 is drawn to claims 5-8 that claim an SPM system comprising an SPM probe for making modifications to an object, a positioning system and a controller to control the positioning system simultaneously in the X, Y and Z directions.

Group 3 is drawn to claims 25-39 that claim an SPM system for inspecting and modifying an object comprising SPM probes for inspection and SPM probes for modification, inspection components to inspect the object and generate results and modification components to modify the object based on the inspected results.

Group 4 is drawn to claims 40-52 that claim an SPM probe comprising an SPM tool with a cantilever and tip, a base with upper and lower surfaces surrounding the tool, a tip activation apparatus to position the tip above and below the lower surface for selectively making SPM measurements or SPM modifications and protection from damage when deactivated and components to make SPM measurements or modifications when the tip is activated.

Group 5 is drawn to claim 88 that claim an SPM probe comprising a base with an aperture, SPM tool connected to the base and within the aperture, components to make SPM measurements or SPM modifications, a vacuum source and a positioning system.

Group 6 is drawn to claims 89-90 that claim an SPM probe for delivering fluid to an object, the probe comprising a tip with a capillary and a microstructured pump.

3. Should Applicant select Invention II, the claims are further restricted because this application contains claims directed towards the following patentably distinct species of the claimed invention:

Group I is drawn to claims 9-17 that claim a graphical user interface comprising a surface image generator to generate a base 3-D image, an augmentation data generator to generate and an augmented image generator to generate augmented image data representing a 3-D image of the surface augmented by the augmentation.

Group II is drawn to claims 18-24 that claim a graphical user interface comprising a surface image generator to generate first and second 3-D images and an overly image generator to overlay the two images and display the results.

4. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim

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is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

5. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

6. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).


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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Kalivoda whose telephone number is (571) 272-2476. The examiner can normally be reached on Monday - Friday (8:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Chris Kalivoda
AU 2881
June 8, 2004


NIKITA WELLS
PRIMARY EXAMINER

06/09/04